

# Pro Capture Family Driver User Manual

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# Safety Information

### **Electrical Safety**

- When devices are installed, make sure that the computer is turned off before the signal cables are connected. If possible, disconnect all power cables from the computer before adding a device.
- Make sure that your power supply is set to the correct voltage for the supply in your area.
- If you are not sure about the voltage of the electrical outlet you are using, contact your local power company.
- If the power supply is broken, do not try to fix it by yourself. Contact a qualified service technician or your retailer.

### **Operation Safety**

- Before installing devices on your motherboard, carefully read all the manuals that come with the package.
- Before using the product, make sure all cables are correctly connected and the power cables are not damaged. If you detect any damage, contact your dealer immediately.
- To avoid short circuits, keep paper clips, screws, and staples away from connectors, slots, sockets and circuitry.
- Avoid dust, humidity, and extreme temperature. Do not place or use the product in any area where it may be exposed. •
- Place the product on a stable surface.
- If you encounter technical problems with the product, contact a qualified service technician or your retailer. •

# Hardware Installation



(a) Sample Motherboard inside the chassis



(b) Motherboard inside the chassis with capture cards installed



#### (c) Rotary switch

#### Procedure

- Turn off the computer power and unplug the power cables. 1.
- Remove the chassis cover and locate the PCI Express slot(s), as shown in 2. figure (a).
- 3. Move the retaining clip to the **open** position (usually by pushing down on it) on the PCIe slot into which you are going to insert the card.
- Plug the video capture card into the slot and make sure it is firmly seated, 4. as shown in figure (b).
- Screw the card onto the rear panel of the chassis. 5.
- 6. If multiple cards are to be installed, we suggest that you set card number of each card before installation. There is a rotary switch on each card marked in hexadecimal from 0 to F which enables you to set specific number for each card according to their needs, as shown in figure (c). After the ID numbers are set, users can install the cards according to steps 3-5.
- Restore the chassis cover. 7.
- 8. For DVI cards and others with analogue inputs, use the included breakout cable to connect the video source and the video capture card.
- 9. Reconnect all the power cables.

# **Driver Installation**

### System requirement

- Minimum requirements: CPU Intel Core 2 Duo E7200; RAM 1GB; integrated graphics card; integrated sound card.
- Recommended: CPU Intel Core i7-6800K @ 3.40GHz; RAM 8GB; Graphics Card NVIDIA Quadro M4000.
- Supported Operating Systems:
  - Windows 7 x64/x86
  - Windows 8 x64/x86
  - Windows 8.1 x64/x86
  - Windows 10 x64/x86
  - Windows Server 2008 x64/x86
  - Windows Server 2008 R2 x64/x86
  - Windows Server 2012 x64/x86
  - Windows Server 2012 R2 x64/x86
  - Windows Server 2016



### Driver Installation and Uninstallation

#### **Driver Installation Procedure**

- Double-click **MWDriverInstaller\_xxx.exe** to install the program. 1.
  - i. If there is an existing driver in the system, the program will compare the version automatically, and you are prompted whether to uninstall the existed one.
  - ii. If you are going to uninstall the existed one, click **Yes**, then continue to install the current driver, follow the prompts to complete the installation process.
- 2. To confirm whether the installation is successful.
  - i. Right click This PC and select Manage > Device Manager > Sound, video and game controllers, and then check if your capture card model(s) are shown in the list of installed devices. In the device list, you can see all the capture cards that are installed in this computer. The number before the Pro Capture card name is the ID (E.g. 00 or 04 in the example), which is set via the rotary switch on the card. For multi-channel cards, the channel number will be added after the ID number. (E.g. 04-0, 04-1, 04-2, 04-3 for a Quad card)
  - i. Choose a capture device and right click **Properties > Driver**. Check the version of the current driver. If it is the same as the installed driver version, the installation has been successful.

#### **Driver Uninstallation Procedure**

- 1. Select the Start  $\blacksquare$  button, then select Settings  $\bigotimes$  > Apps.
- Choose the Magewell Pro Capture Driver version program, and then 2. select Uninstall.
- 3. To confirm whether the uninstallation was successful.

- i. Right click This PC and select Manage > Device Manager > Sound, video and game controllers.
- ii. Check that your capture card model(s) are removed from the list of installed devices.

# Settings

The attributes of the Pro Capture Card can be ticked and modified through video capture software, e.g. AMCap or OBS. The parameters are as follows.

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#### Properties

Input	Vic	leo Decoder	Video	Proc Amp
Video	OSD	Timing	HDMI	Info
Name		Value		
Family name		Pro Capture		
Product name		Pro Capture AIO		
Firmware nam	ie	High Performance	Firmware	
Serial number		B102141231013		
Hardware ver	sion	В		
Firmware vers	sion	1.31		
Driver version	1 IIII	1.3.3710		
Board index		1		
Channel index	c	0		
Device instan	ce ID	PCI\VEN_1CD7&D	EV_0002&SUB	SYS_00100001
PCIe address		Bus 9, Devcie 0		
PCIe speed		Gen 2		
PCIe width		x1		
PCIe max pay	load size	256 Bytes		
PCIe max rea	d request size	256 Bytes		
Total memory	size	268435456 Bytes	1	
Free memory	size	73486336 Bytes		
Max input dim	ension	2048x2880 Pixels	1	
Max output di	imension	2048x2880 Pixels	1	
Core tempera	ture	87.1 deg C		
<				>
	OK	Cancel	Apply	Help

#### Info

Item	Item Description
Family name	Shows the name of the produc Capture).
Product name	Shows the name of this specifie
Firmware name	Shows the name of the firmwa
Serial number	Shows the serial number.
Hardware version	Shows the hardware version of
Firmware version	Shows the firmware version cu
Driver version	Shows the driver version curre
Board index	Shows the board ID number, a from 0 to F. Set via a rotary sw will be 0 for a mini card.
Channel index	Shows the zero-based channe for a single channel card; 0/1 f card; 0/1/2/3 for a quad chanr
Device instance ID	The key value can be found in Registry\Computer\HKEY_LOC \SYSTEM\CurrentControlSet\Se

uct family (Pro fic product. are. of this product. urrently installed. ently in use. a hexadecimal value witch on the card. It el number. It will be 0 for a dual channel nnel card. the registry at: CAL\_MACHINE Services\ProCapture.

Item	Item Description
PCIe address	Shows the PCIe bus number a
PCIe speed	Shows the PCIe bus speed (e.g
PCIe width	Shows the PCIe bus bandwidth x4, x8, x16).
PCIe max payload size	Shows the max length of valid
PCIe max read request size	Shows the max size of PCIe bu
Total memory size	Shows the current onboard me 256MB).
Free memory size	Shows the currently unused m
Max input dimension	Shows the max video input res
Max output dimension	Shows the max video output re
Core temperature	Shows the current temperature

and device number.

.g. Gen1, Gen 2).

th (options are x1, x2,

PCIe bus data.

ous read request.

nemory size (e.g.

nemory size.

esolution.

resolution.

re of FPGA chip core.

Input		o Decoder		Proc Amp
Video	OSD	Timing	HDMI	Info
Auto adjustme Auto sam			Phase Phase: Auto pha	4
Adjust timing	Custom timings	Custom GTF/C	/T resolutions	
CEA, 1920x1	080p, 59.97 Hz		Preferred	timings >
H active:	<		>	1920 Pixels
H total:	<		>	2200 Pixels
H offset:	<		>	234 Pixels
V active:	<		>	1080 Lines
V offset:	<		>	41 Lines
Clamp positio Aspect ratio:	n: < 16 🔺 :	9	>	44 Pixels
		Reset timing	Save as cu	istom timing
	ОК	Cancel	Apply	Help

### Timing

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When the capture card in use has a component or VGA capture interface, this Timing tab will be shown. The parameters can only be set when the input signal is either a component video signal or a VGA video signal. It is provided by Pro Capture AIO, Pro Capture DVI, Pro Capture Dual DVI video cards.

Item Name	Item Description
Auto sampling phase	Ticked by default. The capture automatically fine-tune the vid optimum clarity.
Auto horizontal alignment	Ticked by default. The card au adjustments to attain the corre of the video.
Phase	It can be manually or automat range is 0-63.

e card will deo to achieve

utomatically makes

rect horizontal position

tically adjusted. The

#### Adjust timing

When the signal is being captured, the device will automatically recommend one or more timings as shown in the Preferred timings list. The first one in the list will be shown above the timing adjustment section by default. If none of the recommended timing matches, you can drag the slider bars below to manually adjust.

Item Name	Item Description
H active	Active horizontal picture width.
H total	Total horizontal pixels captured.
H offset	Set the value to move the image horizontally. Note: The dimensions have the following relation: H total >= H active + H offset, for example, H active = 1920, H total H offset <= 280.
V active	Active vertical picture width.
V offset	Set the value to move the image vertically. Note: The dimensions have the following relation: V total >= V active + V offset, for example, V active =1080, V total= offset <= 45.
Clamp position	Used to adjust the sampling point of A/D conversion to remove interference, usually do not need to be modified.
Aspect ratio	Set the aspect ratio of input video.

To add a new custom timing:

• Click Save as custom timing to save the correct timing setting in the Custom Timings tab. When the same video signal is connected again, the card will automatically show the video according to the previously saved profile.

To reset timing:

• Click Reset timing to set the custom timing as the current timing. If no custom timing is available, the first one in the recommended list will be set as the current timing.

tal = 2200, as a result, l=1125, as a result V

#### Properties Input Video Decoder Video Proc Amp OSD Timing HDMI Video Info Auto adjustment Phase \* Auto sampling phase 4 Phase: Auto horziontal alignment Auto phase adjust Adjust timing Custom timings Custom GTF/CVT resolutions Mode Total scan Sync signal 1920x1080p, 59.97Hz 2200x1125 ES

OK

Cancel

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Delete

Help

Apply

Item Name	Item Description
Custom timings	This shows the saved custom set timing, including resolution, fra sampling, and synchronization same video signal is connected automatically show the video a previously saved setting. If the the past setting(s), they can cho <b>Custom timings</b> and click <b>Dele</b>

setting in **Adjust** rame rate, pixel in method. When the ed again, the card will according to the e user wants to delete noose the setting in **lete**.

#### Properties $\times$ Video Decoder Video Proc Amp Input Video Timing OSD HDMI Info Auto adjustment Phase \* 4 Auto sampling phase Phase: Auto horziontal alignment Auto phase adjust Adjust timing Custom timings Custom GTF/CVT resolutions Resolution 1200x720 Add... Modifiy... Delete OK Cancel Apply Help

Item Name	Item Description
Custom GTF/CVT resolutions	If adjustments made in the <b>Tim</b> cannot achieve satisfactory resu manually add a resolution that standards.

To add a new resolution:

• Click Add and input a valid Width and Height.

Resolution	×
Width:	720
Height:	576
ОК	Cancel

To modify or delete a resolution:

• Click a resolution, then click **Modify** or **Delete** to change existing values.

#### ning Adjustment tab

sults, users can

meets GTF or CVT

Input	Vid	leo Decoder	Vide	o Proc Amp
Video	OSD	Timing	HDMI	Info
Capture Prev				
	anda (PNG RGBA file	Magewell's new Pro The Pro Capture series of cards dell an intuitive user experience. Please e): SDExample.png	vers superior performa	nce, tich new features, for more information.
Enable OSI			d preset	Save preset
	OK	Cancel	<u>A</u> pply	Help

#### OSD

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An image with transparency (i.e. alpha channel) can by overlaid on the incoming video by using the OnScreenDisplay (OSD) function.

- Browse to select a PNG RGBA image from local folder. 1.
- Click Enable OSD to activate the overlay. 2.
- 3. Click Save preset to save the current image/path as a template. Then users can click Load preset to load the image in the previously saved OSD file path.

Video         OSD         Timing         HDMI         Info           EDID         00: 00 FF FF FF FF FF FF FF FF 00 34 F7 00 E1 4E         10: 01 19 01 03 80 30 1B 78 07 EE 95 A3 54         10: 01 19 01 03 80 30 1B 78 07 EE 95 A3 54           10: 01 19 01 03 80 30 1B 78 07 EE 95 A3 54         10: 01 19 01 03 80 30 1B 78 07 EE 95 A3 54         10: 01 19 01 00 F3 39 80 18 71 38 2D           40: 45 00 C4 8E 21 00 00 1A 28 3C 80 A0 70         50: 30 20 36 00 C4 8E 21 00 00 1E 00 00 00         10: 00 00 00           50: 30 20 36 00 C4 8E 21 00 00 1E 00 00 00         10: 00 19 78 0C 78 11 00 0A 20 20 20 20 20         20           80: 02 03 2F 71 50 01 02 03 04 05 90 11 12         *            Reset         Load           Save         Save	1 Colores	ıt		000		lueo		der			HDM		Proc		
00: 00 FF FF FF FF FF FF FF 00 34 F7 00 E1 4E         10: 01 19 01 03 80 30 1B 78 07 EE 95 Å3 54         20: 0F 50 54 FF FF 80 81 C0 81 00 81 40 95         30: B3 00 D1 C0 D1 00 F3 39 80 18 71 38 2D         40: 45 00 C4 8E 21 00 00 1Å 28 3C 80 Å0 70         50: 30 20 36 00 C4 8E 21 00 00 1E 00 00 00         60: 72 6F 20 43 61 70 74 75 72 65 0Å 20 00         70: 00 19 78 0C 78 11 00 0Å 20 20 20 20 20         80: 02 03 2F 71 50 01 02 03 04 05 90 11 12 <b>Keset</b> Load         Save	Video			USL	,		11	ning			HUM			Inte	0
10: 01 19 01 03 80 30 1B 78 07 EE 95 A3 54         20: 0F 50 54 FF FF 80 81 C0 81 00 81 40 95         30: B3 00 D1 C0 D1 00 F3 39 80 18 71 38 2D         40: 45 00 C4 8E 21 00 00 1A 28 3C 80 A0 70         50: 30 20 36 00 C4 8E 21 00 00 1E 00 00 00         60: 72 6F 20 43 61 70 74 75 72 65 0A 20 00         70: 00 19 78 0C 78 11 00 0A 20 20 20 20 20         80: 02 03 2F 71 50 01 02 03 04 05 90 11 12            Reset       Load         Save         AVI       Audio SPD MS VS ACP ISRC1 ISRC2 Gamut         Type: 0x82         Version: 0x02         Length: 13 Bytes         Checksum: 0x77 (OK)         Data 00: 40 A8 00 10 00 00 00 00         Data 08: 00 00 00 00 00	EDID														
60: 72 6F 20 43 61 70 74 75 72 65 0A 20 00 70: 00 19 78 0C 78 11 00 0A 20 20 20 20 20 80: 02 03 2F 71 50 01 02 03 04 05 90 11 12	10: 20: 30:	01 0F B3	19 50 00	01 54 D1	03 FF C0	80 FF D1	30 80 00	1B 81 F3 00	78 C0 39	07 81 80	EE 00 18	95 81 71	A3 40 38	54 95 2D	^
Reset         Load         Save           AVI         Audio         SPD         MS         VS         ACP         ISRC1         ISRC2         Gamut           Type:         0x82         Version:         0x02         Length:         13         Bytes         Checksum:         0x77         (OK)           Data         00:         40         A8         00         10         00         00         00           Data         08:         00         00         00         00         00         00	60: 70: 80:	72 00	6F 19	20 78	43 0C	61 78	70 11	$\begin{array}{c} 74\\ 00 \end{array}$	75 0A	72 20	65 20	0Å 20	20 20	00 20	~
AVI         Audio         SPD         MS         VS         ACP         ISRC1         ISRC2         Gamut           Type:         0x82         Version:         0x02         Image: Checksum:         0x77         (OK)         Image: Checksum:         0x77         (OK)         Image: Checksum:         0x77         (OK)         Image: Checksum:         00	<													>	
Type: 0x82 Version: 0x02 Length: 13 Bytes Checksum: 0x77 (OK) Data 00: 40 A8 00 10 00 00 00 00 Data 08: 00 00 00 00						R	eset			Load			Sa	ve	
Type: 0x82 Version: 0x02 Length: 13 Bytes Checksum: 0x77 (OK) Data 00: 40 A8 00 10 00 00 00 00 Data 08: 00 00 00 00															
Version: 0x02 Length: 13 Bytes Checksum: 0x77 (OK) Data 00: 40 A8 00 10 00 00 00 00 Data 08: 00 00 00 00 00															
	AVI	Aud	io	SPD	Μ	IS	VS		ACP		ISRC	1 IS	SRC2	Ga	mut
	Ve: L Chec Da	Ty rsi eng cks ta	ype on: th: um: 00:	: 0: 0x 13 0x 40	x82 02 By 77 A8	tes (OK 00	)	00				1 [5	SRC2	Ga	~

### HDMI

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When the capture card has one or more HDMI interface(s), the HDMI tab will be available in the control panel.

Item Name	Item Description
EDID	Standard data in VESA format. supplier's information, max res settings, manufacturer's preset name of monitor and string of
Reset	Resets the current EDID to the
Load	Loads a local EDID file.
Save	Saves the current EDID.
AVI	Shows type, version and verify stream and the verification res
Audio	Shows the type, version and version and the verification res
SPD, MS, VS, ACP, ISRC1, ISRC2, Gamut	Show information of the HDM

t. It shows the esolution, color et, frequency range, of serial number. e default one. y bit of the video sult. verify bit of the audio sult. /II InfoFrame.

Input	Video	Decoder	Video I	Proc Amp
Video	OSD	Timing	HDMI	Info
input - (1920x1	080p)			
Aspect ratio		: 9 🔺		
		¥		
Color format	YUV BT.70	)9		
Quantization	: Full range	(0-255)		$\sim$
Capture Previe	ew.			
Output format:	640x480,	29.97 fps, BGRX	32Bits	
Aspect ratio	. 4	: 3 🔺	Low latenc	y mode
Crop input:	0	, o 🚔 ·	1920 🔺 ,	1080 📤
		, 🕛 👻	1920 - /	1000 +
Color format	RGB			
Quantization	: Full range	(0-255)		
Saturation:	Full range	(0-255)		$\sim$
Deinterlace:	Blend top	& bottom field		~
AR convertion:	Ignore			~
		Load	preset Sav	e preset
	ОК	Cancel	Apply	He

### Video

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By default, **Input** shows the input information extracted from the signal. If a non-standard signal is incorrectly recognized by the capture device, users can manually adjust the parameters.

Item Name	Item Description
Aspect ratio	Shows the aspect ratio of the obox is ticked (The shortcut key users can adjust the aspect rate arrows (Shortcuts are up and o
Color format	Shows the color space of the obox is ticked, other color space from the drop-down list (The sector the sector).
Quantization	If the box is ticked, the quantiz range and Limited range can

e current input. If the ey is the Space key), atio by clicking on the I down arrow keys).

current input. If the ces can be chosen shortcut key is the

tization values of **Full** an be chosen.

### Preview/Capture

Item Name	Item Description
Output format	Shows the current resolution, frame rate and color space of the previewed video. When the settings of this stream are changed, the data here will be ch
Aspect ratio	Shows the aspect ratio of the current output.
Low latency mode	The latency will be reduced when low latency mode is chosen. It can be very useful and the benefit is obvious in video conferencing. Take video capture card with PCIe 2.0 x1 (such as ProCaptureAIO) for example, the comparison of three modes of data transfer, normal mode, low-latent mode and partial completion notification mode, is shown as follows.
Crop input	Adjusts the captured pixel area from the input video by cropping the edges, using X/Y pixel values for top/left and bottom/right.
Color format	Shows the color space for capturing. If the box is ticked, other color spaces can be chosen.
Quantization	Users can choose Full range or Limited range.
Saturation	Shows the grades of saturation of the input signal. Options are Full range, Limited range and Extended GAMUT range.
Deinterlace	<ul> <li>The range of values:</li> <li>Weave: Combines the top field and bottom field into a frame without any other process. Usually used to capture the original data.</li> <li>Blend top &amp; bottom field: Merges two fields together and deinterlaces via FPGA to ensure a CPU-free video processing.</li> <li>Top field only: Copy the top field data in vertical direction as a full frame.</li> <li>Bottom field only: Copy the bottom field data in vertical direction as a full frame.</li> <li>Deinterlacing is a process of converting interlaced video into a non-interlaced form, and half size the frames after processing. For example, the input sig signal, the device delivers a 30 FPS progressive signal after processing.</li> </ul>



Item Name	Item Description
AR conversion	<ul> <li>Aspect Ratio conversion mode options include:</li> <li>Ignore: Ignore the original aspect ratio and stretch to full-screen.</li> <li>Cropping: Expand to full-screen and remove parts of the image when necessary to keep the original aspect ratio.</li> <li>Padding: Fit to screen and add black borders to keep the original aspect ratio.</li> </ul>
Load preset	Loads the saved presets.
Save preset	Saves the current settings as presets.



roperties								×
Video	0	SD	Timin	a	HD	MI	Info	
Input		Video	Decode	-		Video	Proc Amp	
Video input:	Com	nposite input	: 0		~		o scan	
Audio input:	Line	input 0			$\sim$	🗹 Link	with video	
Video signal sta	atus	Audio signa	al status	Input s	pecific	status		
Name			Value					
Signal status			Locked					
Resolution			720x48	0i, 59.94	Hz			
Aspect ratio			4:3					
Total scan siz	-		858x52	5 Pixels				
	Active area offset		X: 126,					
Color format			YUV BT					
Quantization	_	e		range (1				
Saturation ra	nge		Limited	range (1	6-235	)		
						_		
<							>	
		OK	Can	l			Uch	
		UK	Can	cei	<u> </u>	pply	Help	

### Input

Item Name	Item Description
Auto scan	Automatically scans the input s the box is unticked, users can r input signal.
Link with video	Automatically scans for an aud in the video signal by default. If changed, the audio signal will a changed to try to match the vid is unticked, users can manually signal.

Note: when both of them are unticked, digital video signal, e.g. HDMI, SDI, can link with all kinds of audio, while analog video signal can only link with analog audio.

signals by default. If manually select the

dio signal embedded If the video signal is automatically be ideo signal. If the box y select the audio

#### Video signal status

Item Name	Item Description
Signal status	Shows the video input signal information parsed by the device, shown as Locked, Unsupported, Not Present.
Resolution	Shows resolution and frame rate of the input video. If the input signal changes, this display will be changed accordingly.
Aspect ratio	Shows the aspect ratio of input video source.
Total scan size	Shows the total scanned pixel area.
Active area offset	Shows the current horizontal and vertical offset of the active signal within the total area scanned.
Color format	Shows the chosen color space of the video signal.
Quantization range	Shows the luminance quantization range Options: Full range (e.g. 0-255) or Limited range (e.g. 16-235 - for 8-bit inputs).
Saturation range	Shows the saturation of the input signal. Options are Full range, Limited range or Extended GAMUT range.

Video	OSD	Timing	HDMI	Info			
Input	Vide	eo Decoder	Vide	eo Proc Amp			
Video input: Audio input:	Composite inp Line input 0	ut 0		uto scan ink with video			
Video signal sta	atus Audio sig	nal status Inpi	ut specific statu	S			
Name Audio format		Value					
		48000 Hz, 24	HBITS, LPCM				
Channel 1 & 2 Channel 3 & 2		Present					
Channel 5 & 6		Not present					
Channel 7 & 8	-		Not present				
Channel 7 & C	0	Not present					
<				>			
	OK	Cancel	<u>A</u> pply	Help			

#### Audio signal status

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Item Name	Item Description
Audio format	Shows the sampling frequency format of the current audio.
Channels 1&2 Channels 3&4 Channels 5&6 Channels 7&8	Shows the current audio stream channel pair. Options are <b>Prese</b> NOTE: These values only indicate audio signal channels, and are of audio signal levels. An audio shown as <b>Present</b> even if no act being received. The analogue levels be shown as <b>Present</b> even when
	connected.

### zy, bit depth and

am status for each sent or Not present. cate the presence of e in no way indicative io channel can be actual audio data is e line input will always hen no audio cable is

	Video Input	OSD Vid	Timing eo Decoder	HD		Info Proc Amp
Video signal status       Audio signal status       Input specific status         Name       Value <ul> <li>Signal status</li> <li>Present</li> <li>Mode</li> <li>HDMI</li> <li>HDCP encrypted</li> <li>No</li> <li>Color depth</li> <li>8 Bits</li> <li>Pixel encoding</li> <li>R/G/B 4:4:4</li> <li>VIC</li> <li>17</li> <li>IT content</li> <li>False</li> <li>Timing - scanning format</li> <li>Progressive</li> <li>Timing - frame rate</li> <li>50.03 Hz</li> <li>Timing - H total</li> <li>864 Pixels</li> <li>Timing - H total</li> <li>864 Pixels</li> <li>Timing - H sync width</li> <li>64 Pixels</li> <li>Timing - H sync width</li> <li>64 Pixels</li> <li>Timing - H sync width</li> <li>64 Pixels</li> <li>Timing - H back porch</li> <li>68 Pixels</li> <li>Timing - V total</li> <li>625 Lines</li> <li>Timing - V total</li> <li>576 Lines</li> </ul>	Video input:			~	_	
Name       Value         Signal status       Present         Mode       HDMI         HDCP encrypted       No         Color depth       8 Bits         Pixel encoding       R/G/B 4:4:4         VIC       17         IT content       False         Timing - scanning format       Progressive         Timing - frame rate       50.03 Hz         Timing - H total       864 Pixels         Timing - H total       864 Pixels         Timing - H front porch       12 Pixels         Timing - H sync width       64 Pixels         Timing - H sync width       64 Pixels         Timing - V total       625 Lines         Timing - V total       526 Lines	Audio input:	HDMI input 0		$\sim$	⊡ Link	with video
Signal status       Present         Mode       HDMI         HDCP encrypted       No         Color depth       8 Bits         Pixel encoding       R/G/B 4:4:4         VIC       17         IT content       False         Timing - scanning format       Progressive         Timing - frame rate       50.03 Hz         Timing - H total       864 Pixels         Timing - H total       864 Pixels         Timing - H sync width       64 Pixels         Timing - H sync width       64 Pixels         Timing - H sync width       64 Pixels         Timing - V total       625 Lines         Timing - V total       576 Lines	Video signal st	atus Audio sig	nal status Inpu	t specific	status	
ModeHDMIHDCP encryptedNoColor depth8 BitsPixel encodingR/G/B 4:4:4VIC17IT contentFalseTiming - scanning formatProgressiveTiming - frame rate50.03 HzTiming - H total864 PixelsTiming - H active720 PixelsTiming - H sync width64 PixelsTiming - H sync width64 PixelsTiming - H back porch68 PixelsTiming - V total625 Lines	Name		Value			^
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Timing - H total     864 Pixels       Timing - H active     720 Pixels       Timing - H front porch     12 Pixels       Timing - H sync width     64 Pixels       Timing - H back porch     68 Pixels       Timing - V total     625 Lines	Timing - scar	nning format	Progressive			
Timing - H active     720 Pixels       Timing - H front porch     12 Pixels       Timing - H sync width     64 Pixels       Timing - H back porch     68 Pixels       Timing - V total     625 Lines	Timing - fram	ne rate	50.03 Hz			
Timing - H front porch     12 Pixels       Timing - H sync width     64 Pixels       Timing - H back porch     68 Pixels       Timing - V total     625 Lines	Timing - H to	tal	864 Pixels			
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Timing Visctive E7Clines	Timing - V to	tal	625 Lines			
		tive.	E76 Lines			
	-					*
		ОК	Cancel	A	pply	Help

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• When HDMI signal is connected, the **Input specific status** tab is as follows:

Item Name	Item Description
Signal status	Options are <b>Present</b> or <b>Not p</b>
Mode	Shows input signal mode.
HDCP encrypted	Shows whether the signal is H Options are <b>Yes</b> or <b>No</b> .
Color depth	Shows the color depth of the c Common values are <b>8 bit</b> , <b>10</b>
Pixel encoding	Shows pixel encoding, e.g. R/C
VIC	Standard video identification o
IT content	If True, pictures are compresse common IT practice, or particu derived from IT practice.
Timing-scanning format	Shows the scan format, e.g. <b>Pr</b> Interlaced.
Timing-frame rate	Shows the current frame rate.
Timing-H total	Shows total horizontal pixels c
Timing-H active	Shows active horizontal picture
Timing-H front porch	Shows pixel width between the horizontal picture and the star sync pulse.

present.

IDCP encrypted.

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/G/B, Y/U/V, Y/Cb/Cr.

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cular requirements

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Item Name	Item Description
Timing-H sync width	Shows width of the horizontal
Timing-H back porch	Shows pixel width between the horizontal sync pulse and the active horizontal picture line.
Timing-V total	Shows total vertical pixels (i.e. captured.
Timing-V active	Shows active vertical picture he
Timing-V front porch	Shows number of lines betwee active vertical picture area and vertical sync pulse.
Timing-V sync width	Shows width of the vertical syr
Timing-V back porch	Shows number of lines betwee vertical sync pulse and the star horizontal picture line.

NOTE:

- When the input video signal is in interlaced format, the table will include information for each field separately (Field-0 and Field-1) in the vertical direction.
- When DVI signal is connected, the parameters in the Input specific status tab is the same as those of HDMI.

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Video Input	OSD Vic	Timing leo Decoder	n.	)MI Video I	Info Proc Amp
deo input:	Component in	nput 0	~	Auto	o scan
udio input:	Line input 0		~	Link	with video
Video signal sta	atus Audio si	gnal status Input	t specific	status	
Name		Value			^
Signal status		Present			
Sync type		Embedded syr	nc		
Frame rate		59.98 Hz			
Scanning for	mat	Progressive			
VS width		5 Lines			
Total scan lin	es	1125 Lines			
Embedded sy	/nc	Tri-Level			
Timing - Type	2	CEA			
Timing - Pixel	l clock	148500000 Hz	2		
Timing - H ac	tive	1920 Pixels			
Timing - H fro	ont porch	88 Pixels			
Timing - H sy	nc width	44 Pixels			
Timing - H ba	ick porch	148 Pixels			
Timing - V ac	tive	1080 Lines			
Timing - V fro	ont porch	4 Lines			
Timing View	na width	Ellipon			>
	ОК	Cancel		oply	Help

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• When component signal is connected, the **Input specific status** tab is as follows:

Item Name	Item Description
Signal status	Options are <b>Present</b> or <b>Not p</b>
Sync type	Shows the type of synchroniza
Frame rate	Shows the frame rate of the in
Scanning format	Options are <b>Progressive</b> or <b>In</b>
VS width	Shows the width of the vertical
Total scan lines	Shows total number of scanne
Embedded sync	Shows the embedded synchro Options are <b>Bi-Level</b> or <b>Tri-Lev</b>

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Video	OSD	Timing	HDMI	Info
Input	Vid	eo Decoder	Video	Proc Amp
Video input: Audio input:	Composite inp Line input 0	out 0	V	ito scan k with video
Video signal s	tatus Audio sig	inal status Inpu	ıt specific status	
Name		Value		
Signal statu	IS	Present		
TV Standard	d	NTSC-M		
Field rate		60 Hz		
<				>
-				
	OK	Cancel	Apply	Help

• When CVBS signal is connected, the **Input specific status** tab is as follows:

Item Name	Item Description
Signal status	Options are <b>Present</b> or <b>Not</b>
TV Standard	Options are PAL, NTSC, SEC
Field rate	The current field frequency c

present.

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of the video signal.

Video	OSD	Timing	HDMI	Info
Input	Vi	deo Decoder	Video	Proc Amp
Video input: Audio input:	SDI input 0		Aut	o scan with video
Video signal s	tatus Audio s	ignal status Input	t specific status	
Name Signal statu Type Scanning fo Color depth Sampling st ST352 payl	ormat n truct	Value Present 3G-B dual link Interlaced 10 Bits Y/Cb/Cr/A, 4: 8A 07 05 01	4:4:4	
<				>
	ОК	Cancel	Apply	Help
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• When SDI signal is connected, the **Input specific status** tab is as follows:

Item Name	Item Description
Signal status	Options are <b>Present</b> or <b>Not p</b>
Туре	Shows the current video signa
Scanning format	Options are <b>Progressive</b> , <b>Inte</b> Frame.
Color depth	Shows the color depth of the c 8/10/12 bit.
Sampling structure	Shows signal type and samplin
ST352 payload ID	Shows the current video format format, aspect ratio.

present.

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current video, e.g.

ing ratios.

nat of SDI, e.g. color

Video Input	OSD Vid	Timing eo Decoder	HE	MI Video	Info Proc Amp
Video input:	VGA input 0		$\sim$	🗹 Aut	to scan
Audio input:	Line input 0		$\sim$	🗹 Lin	k with video
Video signal sta	atus Audio sig	inal status Inpu	t specific	status	
Name		Value			^
Signal status		Present			
Sync type		Embedded sy	nc		
Frame rate		59.98 Hz			
Scanning for	mat	Progressive			
VS width		5 Lines			
Total scan lin	es	1125 Lines			
Embedded sy	/nc	Tri-Level			
Timing - Type	2	CEA			
Timing - Pixe	clock	148500000 H	z		
Timing - H ac	tive	1920 Pixels			
Timing - H fro	ont porch	88 Pixels			
Timing - H sy	nc width	44 Pixels			
Timing - H ba	ck porch	148 Pixels			
Timing - V ac	tive	1080 Lines			
Timing - V fro	nt porch	4 Lines			
Timing May	ne width	Elipso			>
*					
	ОК	Cancel		vlaa	Help

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• When VGA signal is connected, the **Input specific status** tab is as follows:

Item Name	Item Description
Signal status	Options are <b>Present</b> or <b>Not present</b> .
Sync Type	Shows the type of synchronization.
Frame rate	The frame rate of the video source.
Scanning format	Options are <b>Progressive</b> or <b>Interlaced</b> .
VS width	Shows width of the vertical sync pulse, in lines.
Total scan lines	Shows total number of scanned lines.
Timing-Type	Shows type of timing standard used.
Timing-Pixel clock	Shows the pixel-scanning frequency.
Timing-H active	Shows active horizontal picture width, in pixels.
Timing-H front porch	Shows pixel width between the end of the active horizontal picture and the start of the horizontal sync pulse.
Timing-H sync width	Shows width of the horizontal sync pulse, in pixels.
Timing-H back porch	Shows pixel width between the end of the horizontal sync pulse and the start of the next active horizontal picture line.
Timing-V active	Shows active vertical picture height, in lines.

Item Name	Item Description
Timing-V front porch	Shows number of lines betwee active vertical picture area and vertical sync pulse.
Timing-V sync width	Shows width of the vertical syn
Timing-V back porch	Shows number of lines betwee vertical sync pulse and the star horizontal picture line.

en the last line of the d the start of the

nc pulse, in lines.

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#### Properties $\times$ Stream Output Color Space: YUY2 $\sim$ X 1080 1920 Presets > Image Size: 59.97 FPS Presets > Frame Rate: OK Cancel Apply

Properties	×
Crossbar Input 2: Video SerialDigital In Current Input:	Output 0: Video Decoder Out
2: Video SerialDigital In Related Pin: -1: Mute In Link Related Streams	Related Pin: -1: Mute Out
OF	Cancel Apply

### Output

Item Name	Item Description
Color Space	Select from drop-down list ma color space.
Image Size	Enter manually or click <b>Presets</b> those listed. The value shown i preferred value.
Frame Rate	Enter manually or click <b>Presets</b> those listed. The value shown i preferred value.

#### Video Crossbar

Select an **Input** signal type from the drop-down list, **Current Input** is autodetected by the system. The selected signal should be the same as the actual one, otherwise, video will not be displayed correctly. You can set the **Video Crossbar** after setting the value of **EnableXBar** as **1** in the registry at: \Computer\HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\ProC apture and restarting the computer. The range of Input values:

- 1. Video Parallel Digital In = SDI signal
- 2. Video Serial Digital In = HDMI signal
- 3. Video RGB In = VGA signal
- 4. Video YRYBY In = YPbPr signal
- 5. Video S-Video In = S-Video signal
- 6. Video Composite In = CVBS signal

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t**s >** and select from in bold is the system-

t**s >** to select from in bold is the system-